

I claim:

1. A capacitive image acquisition method, which comprises:  
  
providing a multiplicity of electrodes arranged in a grid and  
acquiring an image by measuring electrical capacitances  
between respective electrodes and image pixels;  
  
acquiring, with further electrodes arranged in the grid and  
capacitively coupled to one another, a local average value of  
a corresponding measurement of the electrical capacitances in  
respectively delimited areas of the image; and  
  
utilizing the average value as a reference value for the  
measured electrical capacitance at at least one pixel within  
the relevant delimited area.
2. The method according to claim 1, which further comprises  
varying dimensions of the areas in which a respective average  
value is acquired within the image.
3. The method according to claim 1, which comprises using the  
average values as respective threshold values and, upon  
comparing a measured capacitance with the respective limit  
value, assigning each pixel one of two possible values.

4. The method according to claim 3, which comprises defining the two possible values as black and white values, and acquiring a black-and-white image of a fingerprint with the multiplicity of electrodes.

5. A device for capacitive acquisition of an image formed of pixels in a grid, which comprises:

a surface upon an image to be acquired is to be placed;

two layers of measuring electrodes formed as electrical conductors disposed at mutually different spacing distances from said surface, said electrical conductors being subdivided in accordance with the grid and mutually insulated;

said two layers including a first layer at a shorter distance from the surface, said first layer having further electrical conductors as reference electrodes disposed adjacent said measuring electrodes in accordance with the grid, and capacitively coupled within predetermined areas, such that a locally averaged capacitive measurement can be performed around each pixel with said reference electrodes; and

electronic circuits connected to said measuring electrodes and reference electrodes for applying electrical potentials to said measuring electrodes and said reference electrodes in an identical manner for an intended measurement and for

determining capacitances respectively present between a respective pixel and a respective electrode.

6. The device according to claim 5, wherein said reference electrodes are comb-shaped structures intermeshed with comb-shaped structures of adjacent said reference electrodes.